

larger than $(n+1)/2$ but less than n , where n is the number of letters in the touchpad or the number of letters in the row of the touchscreen having the most letters. The actual overall horizontal length will depend upon the extent of overlap of the areas of the virtual keys.

[0046] Reference is now made to FIGS. 7, 8A and 8B. FIG. 7 is a flowchart illustration of an exemplary method for determining which letters to pass to the predictive text software module. FIGS. 8A and 8B are illustrations of a virtual "G" key in accordance with alternate embodiments of the present invention.

[0047] A touch location is received (700). If the touch location is within overlapping areas of two or more virtual keys (702), then all letters whose virtual key area includes the touch location are selected and sent to the predictive text software module (704).

[0048] In some embodiments, the two or more letters sent to the predictive text software module in block 704 may be sent with one or more numerical weights indicating that the touch location is closer to one of the selected letters than to the others, or indicating how much closer the touch location is to one of the selected letters than to the others. The predictive text software module may take these numerical weights into account when determining which of the selected letters the user intended to enter.

[0049] For example, the virtual key of the letter "G" shown in FIG. 8A is defined as the area bounded by the horizontal centers 802 and 804 of the letters "F" and "H", respectively and by the vertical centers 806 and 808 of the letters "R", "T" and "Y", and "C", "V" and "B", respectively. If the touch location is in the region denoted 810, then the letters "G", "T", "Y" and "H" are sent to the predictive text software module. If the touch location is in the region denoted 812, then the letters "G", "T", "R" and "F" are sent to the predictive text software module. If the touch location is in the region denoted 814, then the letters "G", "F", "C" and "V" are sent to the predictive text software module. If the touch location is in the region denoted 816, then the letters "G", "H", "B" and "V" are sent to the predictive text software module. In an alternative embodiment, each touch may result in only three letters being sent to the predictive text software module, such as, for example, the three letters having centers that are closest to the touch location.

[0050] In another example, the virtual key of the letter "G" shown in FIG. 8B is defined as the area bounded by the lines joining the centers of the letters nearest to the letter "G". If the touch location is in the region denoted 821, then the letters "G", "T" and "F" are sent to the predictive text software module. If the touch location is in the region denoted 822, then the letters "G", "F" and "V" are sent to the predictive text software module. If touch location is in the region denoted 823, then the letters "G", "V" and "B" are sent to the predictive text software module. If touch location is in the region denoted 824, then the letters "G", "B" and "H" are sent to the predictive text software module. If touch location is in the region denoted 825, then the letters "G", "H" and "Y" are sent to the predictive text software module. If the touch location is in the region denoted 826, then the letters "G", "Y" and "T" are sent to the predictive text software module.

[0051] If the touch location is within the area of the virtual key of only one letter (706), then the letter is the input (708). Otherwise, the touch location is not sufficiently close to any of the letters to generate letter input (710).

[0052] Reference is now made to FIG. 9. FIG. 9 is a block diagram of an exemplary mobile electronic device 900. Device 900 may be a personal data assistant (PDA), a personal information manager (PIM), a two-way pager, a cellphone, a handheld terminal, and the like. In some embodiments, device 900 may be a two-way communication device with data communication capabilities having the capability to communicate with other computer systems. In some embodiments, device 900 may also include the capability for voice communications. Device 100 of FIG. 1 and device 200 of FIG. 2 are examples for device 900.

[0053] Device 900 comprises a microprocessor 902 that controls the overall operation of device 900, a persistent store 904, a volatile store 906, a display 908 and an input subsystem 910. Device 900 may comprise additional components that are not shown in FIG. 9 so as not to obscure the description of embodiments of the invention. Operating system software used by microprocessor 902 is typically stored in persistent store 904, such as, for example, flash memory or read-only memory (ROM), programmable ROM (PROM), mask ROM, electrically programmable read-only memory (EPROM), electrically erasable and programmable read only memory (EEPROM), non-volatile random access memory (NVRAM), a magnetic or optical card, CD-ROM, and the like. Microprocessor 902, in addition to its operating system functions, enables execution of software applications on device 900. The operating system, specific device applications, or parts thereof, may be temporarily loaded into volatile store 906, such as for example, random access memory (RAM), static random access memory (SRAM), dynamic random access memory (DRAM), synchronous dynamic random access memory (SDRAM), RAMBUS dynamic random access memory (RDRAM), double data rate (DDR) memory, and the like.

[0054] A non-exhaustive list of examples for display 908 includes a liquid crystal display (LCD) screen and a thin-film-transistor (TFT) LCD screen. [0055] Input subsystem 910 may include any of a keyboard 912, a roller wheel 914, one or more touchpads 916, and one or more touchscreens 918, and the like, or any combination thereof.

[0055] Device 900 is battery-powered and includes a power supply and management subsystem 920. Although current technology makes use of a battery, future technologies such as micro fuel cells may provide the power to device 900.

[0056] The methods described hereinabove and illustrated with respect to FIGS. 3, 5 and 7 may be stored as instructions, for example in persistent store 904, and executed by microprocessor 902 during processing of user input. The predictive text software module referred to hereinabove may also be stored as instructions, for example in persistent store 904, and executed by microprocessor 902. The predictive text software module is to determine which of the selected letters the user intended to enter, as is known in the art, possibly with further input from the user.

[0057] Unlike "text on nine keys" (T9), which determines which of three or four letters is the letter that the user intended to enter, in some embodiments of the present invention, only two letters are sent to the predictive text software module. Moreover, in T9, the grouping of letters in groups of three or four is fixed and always the same (e.g. {"A", "B" and "C"}, {"D", "E" and "F"}, {"G", "H" and "I"}, {"J", "K" and "L"}, {"M", "N" and "O"}, {"P", "Q",